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A new spider species from Bulgaria, *Brachythele langourovi* sp. n. (Araneae, Nemesiidae)

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A new spider species from Bulgaria, *Brachythele langourovi* sp. n. (Araneae, Nemesiidae). - The new species is described from male and female specimens (male and female illustrated) collected in Bulgaria (Central Stara Planina Mts, South Pirin Mts, Mt Maleshevska, Mt Osogovo, Mt Vitosha, East Rhodopi Mts and Strouma Valley). The male palps of this species are different from those of all previously known species of the genus.

Keywords: Description - new species - Enina Gorge - Kalimantsi - Osogovo - Vitosha.

INTRODUCTION

The genus *Brachythele* Ausserer, 1871 was previously known from Bulgaria by a single species: *Brachytele denieri* (Simon, 1916) (Drensky, 1937; Lazarov *et al.*, 2001). The species was described by Simon (1916) as *Nemesia denieri*, but Drensky (1937) was looking on its two tibial spurs and placed it to *Nemesiothele*, which is now considered as a junior synonym of *Brachythele* (Raven, 1985). Material of a new species has been collected by intensive research in recent years (2000-2003) in Southern Bulgaria and is here described after critical consideration of all available unpublished records.

MATERIAL AND METHODS

The spider material was collected by pitfall traps with 4% formalin, which were emptied once a month. Colour is described from formalin and alcohol preserved specimens. All measurements used in the description are given in mm. The measurements of the legs are taken from the dorsal side. Total length of the body includes chelicerae. Spermathecae were dissected off and mounted dorsal side on an excavated slide in 15% potassium hydroxide (KOH).

TAXONOMY

Brachythele langourovi sp. n. Figs 1-5

Material examined: Bulgaria: Central Stara Planina Mts, Enina Gorge, 600 m alt., 15 March – 10 April 2000, 1 male holotype, 6 male paratypes (leg. M. Langourov); 1 April – 1 May 2000, 5 male paratypes (leg. M. Langourov); South Pirin Mts, Sveti Iliya Hill near Kalimantsi

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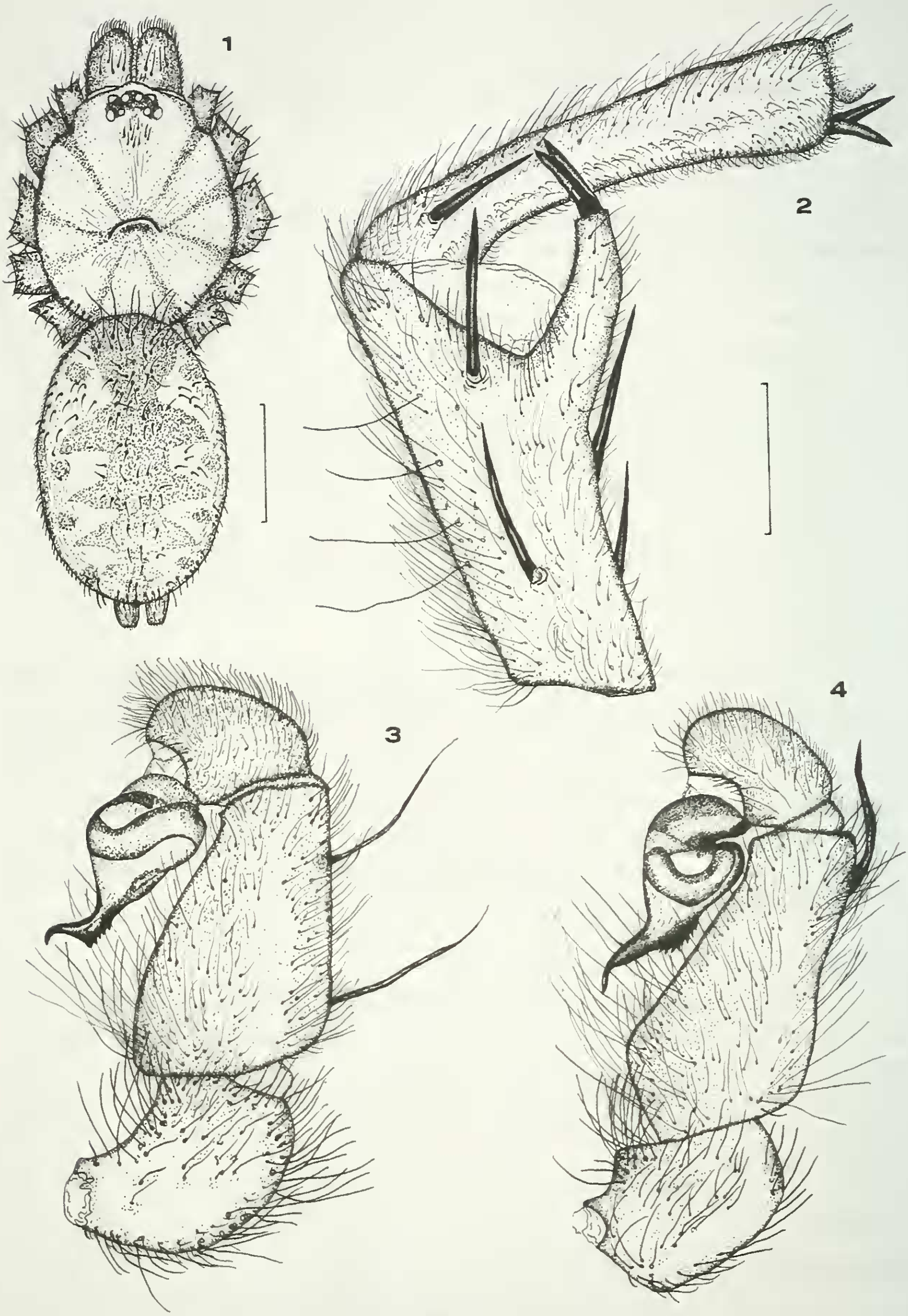

Figs 1-4

1. *Brachythele langourovi* sp. n., cephalothorax and abdomen of male, dorsal view. Scale line 0.3 mm. 2. Tibia and metatarsus of leg I, prolateral view. 3. Palpal patella, tibia, cymbium and bulb, prolateral view. 4. Same, retrolateral view. Scale line 0.1 mm.

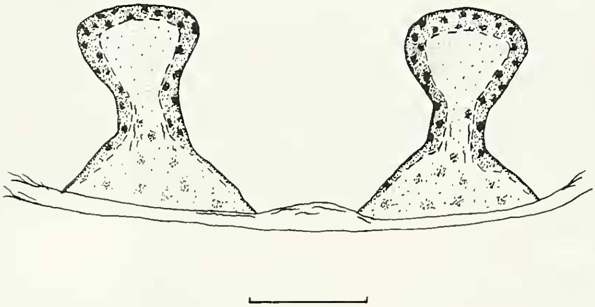

FIG. 5

Brachythele langourovi sp. n. Spermathecae, dorsal view. Scale line 0.6 mm.

Village, 450-510 m alt., maquis (*Quercus coccifera* association), 6 April – 10 May 2002, 19 male paratypes, 10 May – 1 June 2002, 12 male paratypes, 1-22 June 2002, 4 female paratypes, 28 September – 3 November 2002, 12 male paratypes, 3 November – 3 December 2002, 6 male paratypes (leg. M. Langourov & S. Lazarov); Strouma Valley, near Kamenitsa Village, maquis (*Quercus coccifera* association), 170-240 m alt., 5 April – 9 May 2002, 19 male and 1 female paratypes, 9-31 May 2002, 1 male paratype, 28 September – 2 November 2002, 3 male paratypes, 2 November – 3 December 2002, 1 male paratype, (leg. M. Langourov & S. Lazarov); Mt. Maleshevska, near Gorna Breznitsa Village, 790 m alt., ecotone between oak forest and meadow, 14 June – 9 July 2002, 2 female paratypes (leg. S. Lazarov); Mt. Maleshevska, Dobri Laki Village, 650 m alt., 25 September 2002, 1 male paratype (leg. T. Lyubomirov); Mt Osogovo, Bogoslov Village, May 1994, 2 male paratypes (leg. B. Georgiev & G. Tsonev); Mt Vitosha, Bosnek Village, 1200 m alt., 20 November 1994, 9 male paratypes (leg. G. Tsonev); East Rhodopi Mts, near Meden Buk Village, 7 October 1996, 4 male paratypes (leg. G. Tsonev); Strouma Valley, Kozhuh Hill, 20 April – 18 May 1996, 10 male paratypes (leg. B. Georgiev). Depository: The holotype, 12 male and 1 female paratypes are deposited in the Muséum d'histoire naturelle, Genève. The rest, 98 male and 6 female paratypes, are in the collection of the Institute of Zoology, Sofia.

Etymology: Named in honour of the colleague Dr Mario Langourov (Sofia), who collected the main part of the material.

Diagnosis: The male genitalia are different from those of all known species of the genus. The new species differs from the other species of the genus by the curved embolus, which is widened at the base and armed with a row of teeth (Figs 3-4). Females are very similar to those of other *Brachythele* species, but there are differences in detailes of the spermathecae (Fig 5).

Description: MALE. Total length 15.1; chelicera, length 1.8, width 1.2; cephalothorax, length 6.5, width 5.4; abdomen, length 6.9. Cephalothorax yellow-brown, fovea thoracica distinctly recurved (Fig. 1). Eye group well presented, wider than longer (Fig. 1). Eyes on black background. Anterior eyes very different in size, arranged in slightly procurved row. Diameter of median anterior eyes almost half of diameter of lateral anterior eyes. Posterior eyes similar to each other, arranged in a straight line, close to the line of anterior eyes. Chelicerae yellow-brown, armed with 10 teeth, frontal and dorsal surface covered by short and thatch setae (Fig. 1). Labium wider than long. Prolateral sides of maxillae with several claviform spicules. Sternum normal. Legs very massive. Femur I-IV dorsally with several thin and long spines. Tibiae and metatarsi III-IV more strongly sclerotized and rough (especially ventrally), with many rows of spines. Tibiae I - II with 3 rows of spines. Tibia I with bent spur with 2 thick and hard spines (Fig. 2). Tibiae and metatarsi III-IV and palps with 4 rows of spines: Tibial rows with 3 spines and palpal rows with 2 spines. Some specimens with additional spines mainly at the base or at the end of the segment. Chetotaxy of the metatarsi of legs analogous. Tarsal claws with 2 rows of teeth. Bulbus pyriform, embolus long and curved, widened at the base, with one row of teeth (Figs 3-4), variable in different specimens. Opisthosoma pale yellow anteriorly with 4 or 5 brown triangular spots, these often united into a single band (Fig. 1).

	femur	patella	tibia	metatarsus	tarsus	total
leg I	4.74	2.62	3.40	3.27	2.39	16.42
leg II	4.51	2.55	2.85	3.27	2.32	15.50
leg III	3.91	1.89	2.81	3.50	2.02	14.13
leg IV	5.15	2.79	4.19	5.06	2.71	19.90
palp	2.58	1.10	1.89	-	1.20	6.77

FEMALE. Total length 22.3; chelicerae, length 2.8, width 2.0; cephalothorax, length 7.5, width 6.7; abdomen, length 12.0. Cephalic part of abdomen elevated. Chelicerae rougher than in the male. Legs I-II and palps with femora curved forward. Tibia I without modified spines. Ventral spines of legs not so rough as in the male. Spermathecae claviform, small but well expressed (Fig. 5).

	femur	patella	tibia	metatarsus	tarsus	total
leg I	5.26	3.12	3.81	2.98	2.28	17.45
leg II	4.70	3.07	3.21	2.93	1.72	15.63
leg III	4.18	2.19	2.58	2.47	2.09	13.51
leg IV	5.58	2.79	4.88	4.18	2.55	19.98
palp	3.91	2.28	2.51	-	2.14	10.84

Discussion: The genus *Brachythele* comprises 8 species (Platnick, 2004). Two species are distributed in Northern America and 6 are distributed in Europe, mainly on the Balkan Peninsula. *Brachythele speculatrix* Kulczyn'ski, 1897 was described from a juvenile specimens, *B. incerta* Ausserer, 1871 and *B. anomala* Schenkel, 1950 both from female specimens. The majority of species were described without any figures. The most important characters are the bulb and the mating spur with modified spines on tibia I. The male palp of *Brachythele langourovi* sp. n. is different from those of all known species of the genus. In the other species known from males the embolus is thin and spiniform. This is also the case in the type species, *Brachythele icterica* (C. L. Koch, 1838), described from the eastern part of the Balkan Peninsula. The male holotype of that species is lost (Raven, 1985).

Distribution and habitats: The new species has been found in Southern Bulgaria, inhabiting screes and dry stony areas covered with bushes (from 170-1200 m a.s.l.).

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REFERENCES

Drensky, P. 1937. Die Spinnenfauna Bulgariens. I. Unterordnung Mygalomorphae, Familie Ctenizidae und Atypidae. *Izvestiya na Tsarskite Prirodonauchni Instituti* 10: 259-280. (In Bulgarian, with German summary).

Platnick, N. 2004. The world spider catalog, version 4.5. *American Museum of Natural History*, online at http://research.amnh.org/entomology/spiders/catalog/index.html.

Raven, R. 1985. The spider infraorder Mygalomorphae (Araneae): cladistics and systematics. *Bulletin of the American Museum of Natural History* 182: 1-180.

Lazarov, S., Deltshev, C. & Blagoev, G. 2001. Spiders (Araneae) of Sushtinska Sredna Gora Mountain, Bulgaria. *Acta zoologica bulgarica* 53: 3-28.

Simon, E., 1916. Liste des Arachnides recueillis à Salonique pendant l'occupation française (1916) par le sergent Pierre Denier, membre de la Société. *Annales de la Société entomologique de France* 85: 273-276.